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COST OF NONCONFORMING SUPPLIES UPDATE

October 1994

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FOR
**DEPARTMENT OF DEFENSE
DEFENSE LOGISTICS AGENCY
EXECUTIVE DIRECTOR (PROCUREMENT)
CAMERON STATION
ALEXANDRIA, VA 22304-6100**

INSIGHT THROUGH ANALYSIS

DORO

DLA-94-P40158

COST OF NONCONFORMING SUPPLIES UPDATE

October 1994

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IN REPLY
REFER TO

FOREWORD

The Defense Logistics Agency (DLA) Directorate of Procurement requested DLA's Operations Research Office (DORO) update a 1989 study to quantify the costs incurred by DLA and other Department of Defense (DoD) activities, as a result of the receipt of nonconforming items from contractors. This report summarizes all efforts involved in the analysis and presents the results in tabular form for use by supply centers.

We updated two costs resulting from the receipt of a nonconforming item - the administrative cost and holding cost. The analysis showed that the average administrative cost for actions that encompass Quality Deficiency Report (QDR) processing, investigation, and resolution is now \$868 per complaint for a typical item managed by DLA. The analysis also showed that the "average" holding cost per QDR is 5.98 percent of the contract value for a typical DLA-managed item. The sum of the administrative and holding costs represents a "minimum" total complaint cost. There are other costs associated with the receipt of nonconforming items that we could not quantify in monetary terms. Administrative and holding costs were calculated for various levels of detail: supply center, Federal Supply Group and Federal Supply Class. The results are presented in a fashion readily adaptable for implementation at each supply center.

These updated cost estimates should be used by the supply centers as economic justification of Best Value Contracting programs as well as in post award negotiation with contractors who have submitted nonconforming product.

**CHRISTINE L. GALLO
Executive Director
(Plans & Policy Integration)**

EXECUTIVE SUMMARY

In 1989, the Defense Logistic Agency's (DLA) Operations Research Office (DORO) documented Department of Defense (DoD) cost estimates for receiving, discovering, holding, processing, storing and disposing of nonconforming material. These estimates have been used by HQ DLA and DLA Supply Centers for a variety of purposes including the economic justification of Best Value Contracting programs and postaward negotiations with contractors that have submitted nonconforming products for the voluntary recoupment of costs. Much has changed within the Supply Centers since this study was conducted. Lab testing programs have been developed at some Centers and greatly expanded at others. Increased attention is being placed upon recoupment of costs from contractors for nonconforming material. Therefore, more current cost information is needed to accurately assess the changes in nonconforming supply costs for DLA and DoD.

This study examines two elements of the cost of nonconforming items, specifically, the administrative cost and the holding cost. The administrative cost arises from actions normally performed at various supply and staff levels (internal and external to DLA) when a nonconforming item is discovered and a Quality Deficiency Report (QDR) is initiated, processed, investigated and resolved. The holding cost results from the storage and handling of nonconforming items and from the lost opportunity of investment for money "tied up" in these discrepant supplies.

- * The average administrative cost accumulated for a single QDR for a typical DLA item is \$868. The average holding cost per QDR is estimated as 5.98 percent of the contract value for a typical DLA item. The administrative costs (in dollars) and holding costs (expressed as a proportion of the contract value) were derived at three levels of detail, the Federal Supply Class, the Federal Supply Group and the individual supply center. These cost results are the products of this study.

Although this study is comprehensive, it is not all-inclusive. There are other costs associated with the receipt of nonconforming items that are not quantified, such as equipment downtime and unit readiness degradation to name a few examples. However, future updates of this study may further explore the possibility of capturing these additional costs.

We recommend the cost estimates developed in this study be used at the DLA supply center contracting directorates in the bid evaluation process. Using these evaluation factors will provide a more accurate estimate of the cost of doing business with contractors. By considering these costs in conjunction with contractor's quality history in the bid evaluation process, DLA will be able to buy "best value" and thus make more cost-effective contract award decisions.

These cost estimates also provide supply center contracting personnel a target figure in postaward negotiations with contractors that have submitted nonconforming products. These cost estimates furnish the contracting officer a starting position in the contractor negotiations for the voluntary recoupment of costs.

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ABSTRACT

DLA-XX-P40158 Cost of Nonconforming Supplies Update (October 1994)

This report updates the 1989 study of the cost of nonconforming supplies. Nonconforming supplies are supplies whose defects prevent their use for their intended purpose. These nonconformances are documented on a Product Quality Deficiency Report (PQDR). Quantified components of nonconforming supplies costs were subdivided into administrative processing costs and material holding costs. These costs were computed not only for each DLA supply center but also, where possible, at the Federal Supply Group (FSG) and the Federal Supply Class (FSC) levels. The output of this study are costs formulae showing the administrative costs as a constant and the holding costs as a percent of the average contract value for each FSG or FSC at a supply center.

KEY WORDS: Nonconforming Material Costs, Holding Costs, Nonconforming Supplies

COMPLETED PROJECT ASSESSMENT

PROJECT TITLE: Cost of Nonconforming Supplies Update (October 1994)

PROJECT NUMBER: DLA-XX-P40158

SPONSORING ORGANIZATIONS: DLA - AQP

COMPLETION DATE: October 1994

ABSTRACT: This report updates the 1989 study of the cost of nonconforming supplies. Nonconforming supplies are those supplies whose defects prevent their use for their intended purpose. These nonconformances are documented on a Product Quality Deficiency Report (PQDR). Quantified components of nonconforming supplies costs were subdivided into PQDR administrative processing costs and material holding costs. These costs were computed not only for each DLA supply center but also, where possible, at the Federal Supply Group (FSG) and the Federal Supply Class (FSC) levels. The output of this study are costs formulae showing the administrative costs as a constant and the holding costs as a percent of the average contract value for each FSG or FSG at a supply center.

MAJOR CONCLUSIONS AND RECOMMENDATIONS: We recommended the cost formulae developed in this study should be used at the DLA supply center contracting directorates in the bid evaluation process. Using these cost formulae will provide a more accurate estimate of the cost of doing business with contractors. By considering these cost formulae in the bid evaluation process, DLA will be able to buy "best value" and thus make more cost-effective contract award decisions.

These cost formulae would also prove useful targets to contracting directorate personnel during postaward negotiations with contractors that have submitted nonconforming products.

PROJECT COST: \$83,490

POTENTIAL VALUE OF STUDY:

MONETARY: In one year the higher nonconforming costs estimates in this update could result in an additional \$12,398,000 in recoupments for the Department of Defense. This savings was calculated by multiplying the yearly number of QDRs times the increase in the administrative and holding costs as a result of this study.

NON-MONETARY: The judicious use of these nonconforming material costs could serve as a deterrent for contractors submitting inferior material to DoD.

IMPLEMENTATION STATUS OF FINDINGS AND RECOMMENDATIONS: Procurement Directorate representatives have been briefed on our findings. Updated costs will be used in DLA's Best Value Contracting efforts as well as in recoupment efforts.

SECTION 1 INTRODUCTION

1.1

BACKGROUND

In 1989, the Defense Logistic Agency's (DLA) Operations Research Office (DORO) published a study titled, "Administrative and Holding Costs Resulting from Processing Reports of Nonconforming Supplies". This study documented cost estimates for receiving, discovering, holding, processing, storing and disposing of nonconforming material. These estimates have been used by HQ DLA and DLA Supply Centers for a variety of purposes including the economic justification of Best Value Contracting programs and postaward negotiations with contractors that have submitted nonconforming products for the voluntary recoupment of costs. Much has changed within the Supply Centers since this study was conducted. Lab testing programs have been developed at some Centers and greatly expanded at others. Increased attention is being placed upon recoupment of costs from contractors for nonconforming material. Therefore, more current cost information is needed to accurately assess internal DLA costs.

1.2

SCOPE

The focus of this analysis is on material classified as "nonconforming." A nonconforming supply item, due to defects attributable to material, manufacturing, or workmanship, cannot be utilized for what it was designed. The Quality Deficiency Report (QDR) is the device utilized by service activities and other DoD agencies to report nonconforming items. The terms QDR and complaint are used interchangeably in this report. QDRs may originate at all supply echelons - the ultimate user, the retail supply activity, or the wholesale supply source (service maintenance facility) - depending upon the level that detects the nonconforming item. DLA depots submit a storage quality control report or, simply, a depot complaint for a quality problem. This analysis concentrates on QDRs and DLA depot complaints.

The DLA Supply Centers analyzed include the Defense Construction Supply Center (DCSC), the Defense Electronics Supply Center (DESC), the Defense General Supply Center (DGSC) and the Defense Industrial Supply Center (DISC). The Defense Personnel Support Center (DPSC) is regarded as being comprised of two subcenters for this project - Medical (DPSC (Med)), and Clothing and Textile (DPSC (C&T)).

The complaint costs generated in this study may be interpreted as the minimum cost of a quality complaint. The complaint process analyzed in this project encompasses only the essential information transfers, investigative efforts, and resolution actions for a typical complaint. Costs are provided for all actions that will probably occur, not necessarily all actions that could occur.

Not all costs associated with nonconforming material are quantifiable. Obviously, these types of costs are not included in this study. For example, a situation in which a major piece of equipment cannot perform its function because of a nonconforming repair part can be easily envisioned as "costly," yet these costs cannot be expressed in monetary terms. Military unit readiness and equipment unavailability do not lend themselves to a "dollars and cents" quantification.

1.3

OBJECTIVE

The main objective of this study was to update the costs associated with the receipt and processing of a Product Quality Deficiency Report (QDR) in FY94.

1.4

ASSUMPTIONS

Following are the assumptions used to estimate the cost of nonconforming supplies.

- (1) The CDCS files accurately reflect the number and causes of nonconforming supplies.
- (2) The subsistence mission of DPSC and the DLA fuel management mission at the Defense Fuel Supply Center (DFSC) are not covered in this study.
- (3) Service depots have been consolidated into DLA. However, QDR processing at these depots remains largely unchanged from the original study. These former Service depots, termed service maintenance facilities in this report, remain treated as non-DLA supply entities for this update.
- (4) Unless otherwise noted, we used data for the period 1 October 1991 to 30 June 1994 for all data files involved in this project.
- (5) The cost of a Report of Discrepancy (ROD) is the subject of a separate study. Only QDRs and Depot complaints are covered by this study.
- (6) An additional cost component of nonconforming supplies was identified. The cost is that of replacing the nonconforming supplies. It is not a sunk cost. This cost should be estimated as the replacement price of the nonconforming items plus the administrative cost of procuring them times the probability that the cost of the nonconforming items is NOT recouped. The following example illustrates this cost:

Ten thousand rifles, serial numbered 1 through 10,000 are procured. One thousand of the rifles, serial numbered 1 through 1,000 do not work and are found to be nonconforming. No recoupment is possible from the supplier, the Remcolt Rifle Co. Therefore the cost of the 1,000 rifles, (serial numbered 1 through 1,000) is a sunk cost. However, the full order of 10,000 rifles is still required to train a contingent of 10,000 U.S. Marines. The commander of the unit has a discussion with his training officer that covers training options (such as rotational training and alternate weapons) as well as where they would get funds for 1,000 replacement rifles. They decide that it is important for each marine to train with his own weapon. They also decide that all the weapons need to be the same model. As a result they decide to order 1,000 rifles, serial numbered 10,001 through 11,000,

from Remcolt. They plan to use funds that were budgeted for ammunition. At this point, the cost of these 1,000 NEW rifles is discretionary. It is NOT a sunk cost. This replacement cost is part of the all-inclusive cost of acquiring the 10,000 conforming rifles (the original requirement, and contract quantity, that had been identified) from Remcolt.

As a result, a more complete estimate of the overall cost of nonconforming supplies would be the sum of the administrative, holding and replacement costs. Estimating the replacement cost requires estimates of the nonconforming item prices and the recoupment rate. Nonconforming item prices were estimated in arriving at the holding cost. Since estimating the recoupment rate was outside the scope of this study we suggest including it in the next update or another study. It has the potential for materially affecting the cost of nonconformance as well as best value calculations. In other words, future orders from Remcolt for 10,000 rifles, ought to be imputed to have a quantity of 11,000. This is because the concept of the best value is to attribute to suppliers the cost impact of their past performance.

SECTION 2 METHODOLOGY

2.1

QDR COST COMPONENTS

Two directly measurable costs concerning nonconforming supplies can be captured. One cost represents the total administration performed at various levels within DLA and the Department of Defense (DoD) agencies when a quality complaint for a nonconforming item is initiated and processed. The other cost results from holding materiel which was determined to be "nonconforming" while awaiting resolution and disposition instructions. The cost of a complaint is the sum of the administrative costs and supply holding costs incurred between complaint initiation and complaint resolution.

The total administrative cost associated with the processing of a QDR includes the cost of identifying the deficiency; segregating stocks; investigating causes; coordinating findings with contractor; responding to the material disposition instructions; legal and financial management actions; and the general flow of information (both formal and informal). The administrative cost is calculated for all scenarios involving each of six centers and each of four levels of complaint initiation (customer or ultimate user; supporting supply activity or retail supply point; service maintenance facility; and DLA depot).

The total holding cost for material awaiting disposition instructions as a result of a QDR is further broken into two parts - the cost of lost opportunity for investment and the "pure" supply cost.

Lost Opportunity Cost. During the period a QDR is being investigated - the time between complaint initiation and complaint closure - nonconforming supplies are "frozen." The money invested in these supplies is tied up. Instead of lying dormant this money could have, at a minimum, been deposited at a nominal interest rate. Thus, the length of time the complaint is under investigation, the value of the items in suspense and the nominal interest rate can be used to calculate a cost of lost opportunity.

Pure Supply Cost. The other cost involves the holding of physical inventory within a storage facility. The suspended material occupies valuable floor or bin space within a depot or retail supply activity. Material handling equipment is utilized to segregate suspended stocks. Facilities and other materiel support efforts are involved when deficient stocks are present. These handling and storage costs are computed in this project. The total of all expenses incurred as a result of the physical presence of discrepant stocks in a storage facility over time is the pure supply cost.

2.2

ADMINISTRATIVE COST

2.2.1

STUDY APPROACH

As a first step in computing the administrative cost, we reviewed and updated the materiel flow of items managed by DLA, purchased from the contractor, and provided to the customer. The main participants in the supply system (DLA depots, service maintenance facilities, supporting supply activities, and ultimate users) were identified and a relative frequency (or probability) was assigned to each of the branches in a diagram representing flow of materiel.

At each level of supply which plays a part in the storage and distribution of DLA managed items (DLA depots, service maintenance facilities, supporting supply activities, and ultimate users), an individual analysis was conducted. This analysis addressed the total administrative costs incurred if a nonconforming item is received by a given activity and if a complaint is subsequently initiated by this activity. Labor costs and frequencies for tasks performed by customers, service maintenance facilities and supporting supply activities were gathered by surveys.

For each complaint, the costs of all administrative actions performed by all DoD and DLA staff agencies in response to the complaint were captured. The individual costs were based on the time to perform identified tasks, the rank or wage grade of the person performing the tasks, the hourly pay rate (with leave, benefits, fatigue and other factors applied), and the relative frequency of the tasks performed. These computations generated an expected cost of the total of all administrative actions applicable to a single complaint.

2.2.2

DATA DEVELOPMENT

The quantitative information in the original analysis was developed from the following: responses to detailed surveys for DoD activities other than DLA (i.e. service customer units, retail supply organizations, service maintenance facilities, and complaint screening points); Special Purpose Data (SPD) standards for DLA activities; interviews with and visits to agencies that are involved with materiel and information flow; accumulated performance data submitted by the individual supply centers to the DLA Management Information System; and historical data from the DLA Integrated Data Bank (DIDB) files. We updated all major study elements in this analysis. Due to time constraints and the inherent lack of precision in survey data, the DoD organizations outside DLA were not re-surveyed. Cost figures derived from the original survey were updated for changes in salary and fringe benefits.

 The Customer/Depot Complaint System (CDCS) files for each of the Supply Centers were used to update the most critical frequencies.

Quality Assurance Management Information System (QAMIS) data was used in the original study to analyze Quality Assurance Representative (QAR) efforts at the Defense Contract Management Command (DCMC) activities. We tried to update these QAR efforts but discovered that the requisite QDR data previously collected in the QAMIS was no longer available. The QAR costs from the previous study were updated for salary and fringe benefit changes.

2.3

HOLDING COSTS

2.3.1

STUDY APPROACH

The calculation of pure supply costs, lost opportunity costs, and the total holding costs used two published factors which served as interest or growth rates in the holding cost computations. The 2.1% rate used as the discount rate was published in OMB memorandum M-94-14 of 10 February 1994, subject: 1994 Discount Rates for OMB circular No. A-94. The rates used for the total cost of holding stock in a suspense mode differ for each supply center. These factors (listed in Table 3-1) were listed in the GAO report titled, "Cost Factors Used to Manage Secondary Items", GAO/NSTAD-92-112. These GAO factors are the most current and tend not to change rapidly.

Each closed complaint in the CDCS was individually considered. A value for the pure supply cost, the lost opportunity cost, and the total holding costs was generated for each complaint. The total holding cost and lost opportunity cost were computed using the total dollar value of all items on a single complaint, the appropriate rate, and the time period that the complaint was being investigated and resolved. Subtracting the lost opportunity cost from the total holding cost produced the pure supply cost for each complaint.

Averages of all costs were made for each individual FSC, FSG, and DLA supply center. The total holding cost was then expressed as a proportion of the contract value for a given FSC or FSG.

2.3.2

DATA DEVELOPMENT

The CDCS data files provided the dollar values and duration of each complaint. The average contract value for each FSC, FSG and Supply Center was derived from the cumulative Active Contract File (ACF) maintained within DORO.

SECTION 3 FINDINGS AND CONCLUSIONS

3.1 COST FINDINGS

The QDR cost equations are provided in Table 3-1. The average QDR cost is termed the evaluation factor (E.F.) reflecting its use in bid evaluations. Evaluation factor usage is demonstrated in section 3.6. Each center's cost formula represents the sum of the average administrative cost and the average holding cost.

Table 3-1. Individual Center Results

<u>Center</u>	<u>Evaluation Factor per Complaint</u>	=	<u>Admin. Cost</u>	+	<u>Holding Cost Proportion</u>	x	<u>Proposed Contract Value</u>
DCSC	E.F.	=	\$ 449.10	+	(.056387	x	\$ _____)
DESC	E.F.	=	\$ 660.79	+	(.081329	x	\$ _____)
DGSC	E.F.	=	\$ 527.23	+	(.051419	x	\$ _____)
DISC	E.F.	=	\$ 538.42	+	(.128055	x	\$ _____)
DPSC (C&T)	E.F.	=	\$1,938.06	+	(.000659	x	\$ _____)
DPSC (Med)	E.F.	=	\$ 694.22	+	(.014718	x	\$ _____)

The evaluation factor for a typical DLA item (averaging over all commodities and supply centers) was also developed. The DLA-wide formula is:

$$\text{DLA E.F.} = \$867.55 + (.059773 \times \text{\$ Proposed Contract Value})$$

This DLA formula resulted from the weighted average of the individual center results.

Appendix A contains E.F. formulas for FSGs within each DLA supply center. The formulas for FSCs are contained in Appendix B. Many stages of computations led to the cost tables attached as appendices. The administrative costs and holding costs computations are catalogued in detail in the accompanying technical report titled, "Cost of Nonconforming Supplies: Administrative Costs and Holding Costs". All computations and intermediate results are included in the technical report.

3.2 MATERIAL FLOW

Diagramming the flow of material from the contractor through the supply system aided in developing frequencies for discovering and reporting nonconforming materiel. The basic flow of materiel is displayed in Figure 3-1. A contractor may ship DLA items to a DLA depot or to any of the service maintenance facilities. For items not normally stocked at a DLA depot, it may be

economically advantageous if the contractor ships directly to an appropriate retail supply activity - the source of supply for the ultimate user or requisitioner.

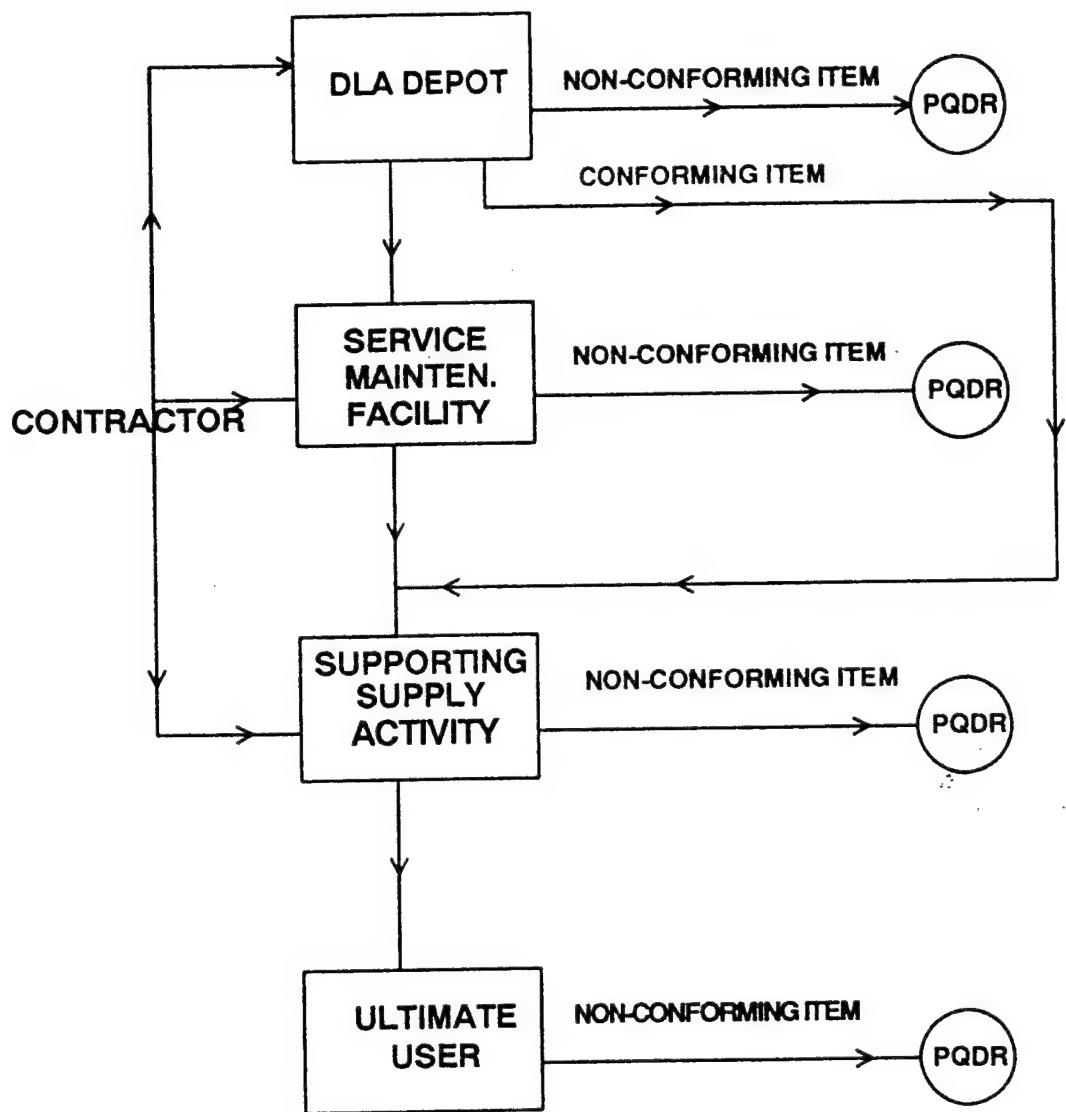


Figure 3-1. Flow of Material

A DLA depot may ship to a service maintenance facility or to a retail support activity. A service maintenance facility, receiving supplies directly from a contractor or DLA depot, will ship these supplies to a supporting supply activity or retail supply point. A supporting supply activity or retail supply point may receive items from a DLA depot, a service maintenance facility, or directly from a contractor. It ships to the ultimate user or the requisitioner of the item - this requisitioner will actually use the

item for the purpose for which it was designed. Some examples of retail supply activities are Army supply and service companies, Air Force base supply activities, or Navy supply ships. Nonconforming material may be discovered at a DLA depot during receiving inspection, at a service maintenance facility, at a supporting supply activity or at the ultimate user.

We first determined the proportions (probabilities) of conforming and nonconforming items at each level of supply. A complete analysis describing the materiel flow to various supply levels via branch probabilities is provided in the technical report. Interim results utilized to describe nonconformance at each supply level (depot, retail supply, user) for each supply center are also contained in the technical report.

3.3

QDR PARTICIPANTS

We traced the complaint flow as the first step in accumulating individual activity costs. The complaint reporting and resolution process is extremely complicated. This complexity arises from ensuring: that the complaint resolution occurs at the lowest level possible, that complete and accurate information is speedily transferred, and that the complaint initiator is satisfied in the most expeditious fashion. A streamlined flow of the complaint and other parts of the management information process is depicted in Figure 3-2. (A complete flow would show many other lines of information transfer that could occur in the resolution of a complaint.)

3.3.1

CUSTOMER UNITS

For our study, the customer is defined as the ultimate user of the item. Upon receipt of a nonconforming item, the customer performs tasks detailed in one of the four surveys utilized to solicit task cost and frequency data from customers, retail supply activities, service maintenance facilities and screening points. These surveys are contained in Appendices A, B, C, and D of the technical report. Survey data from the original study was updated for changes in salary and fringe benefits.

The cost estimates developed for every function performed by a customer included consideration of leave, fringe benefit costs and fatigue factors. In all cases where information was derived from a survey of different sites, the median cost - not the average or mean cost - was utilized. Using the median of all individual survey results provides a better cost estimate by eliminating the risk of a few extremely high or low costs affecting the entire sample.

The costs associated with customer units occurred in two phases. The discovery of the nonconforming materiel and submission of the quality complaint comprise the first phase. The second phase involves responding to disposition instructions regarding the nonconforming materiel in the complaint. The instructions may come from the Quality Assurance Representative (QAR) at a DCMC district or from the supply center action point. Instructions are routed through the screening point to the customer, retail supply point or service maintenance facility.

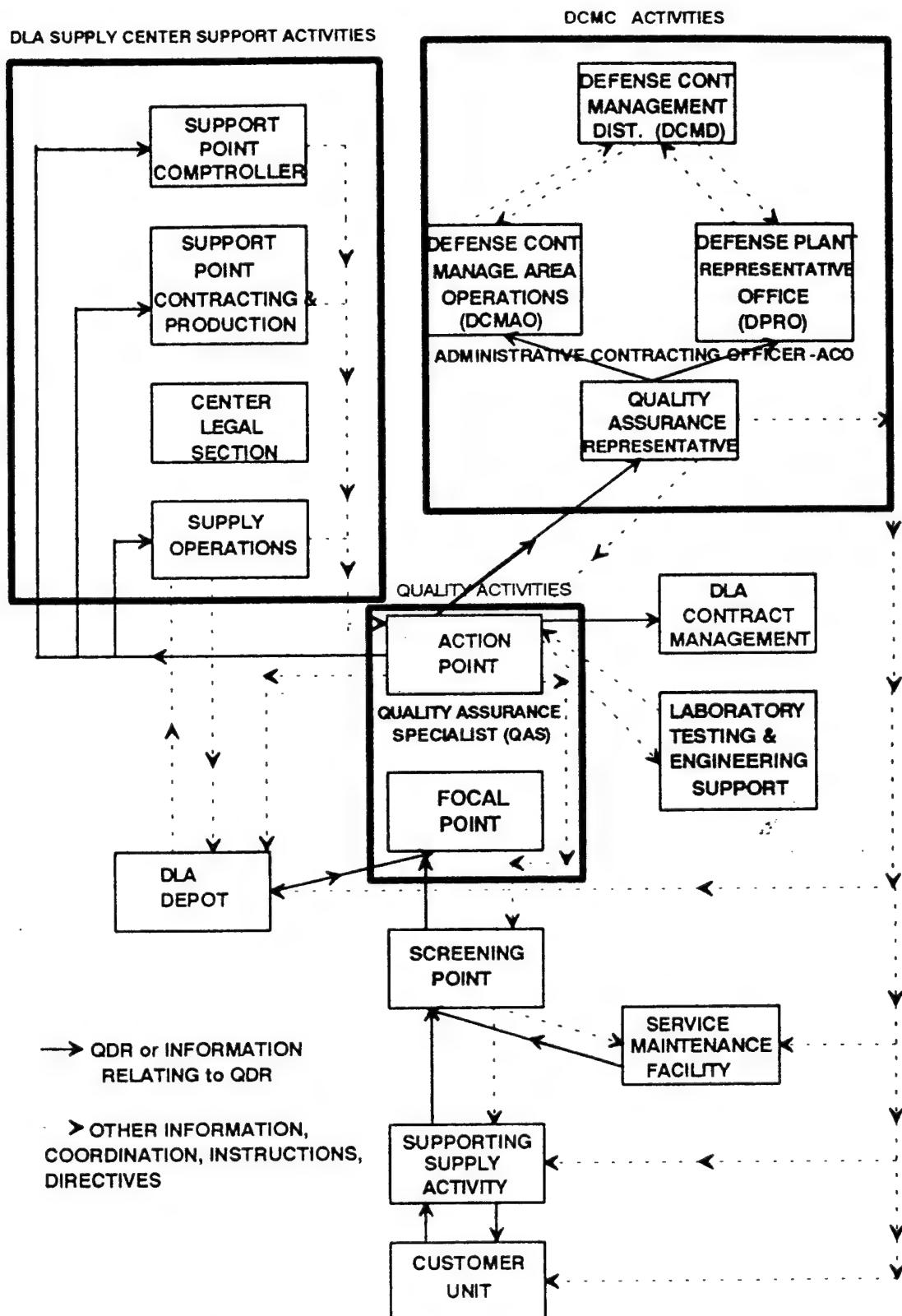


Figure 3-2. Complaint Resolution Process

3.3.2

SUPPORTING SUPPLY ACTIVITY

The supporting supply activity or retail supply point may receive the complaint from a customer unit (or it may initiate its own report if a nonconforming item is detected upon receipt). The supporting supply activity receives, stores, and issues stock at the retail level directly in support of an intended user.

3.3.3

SERVICE MAINTENANCE FACILITY

A service maintenance facility operating at the wholesale supply level may receive and issue DLA managed items. (A service maintenance facility, therefore, may also detect a nonconforming item and initiate a complaint). Detailed tasks normally performed at a retail supply point and at a service maintenance facility were obtained from surveys of these activities. Costs were again calculated based on the time expended and the associated grade of the person performing the task.

3.3.4

SCREENING POINT

The screening point ensures all the information on a complaint is complete and correct before a submission is made to the appropriate DLA supply center. It acts as a funnel of complaint information from customers, retail supply activities, and service maintenance facilities to DLA and as the interface between the complaint initiators and the complaint resolvers (generally the supply centers). Screening point activities are contained in the survey in Appendix D of the technical report. Survey responses provided the non-DLA complaint screening point costs. DLA depots communicate a quality problem directly to the appropriate supply center without going through a designated screening point.

3.3.5

DLA DEPOT

The actions that a DLA depot normally takes are detailed in SPD standards. In addition to using the SPD standards, the actual flow of information and materiel within Defense Depot Richmond (DDRV) was studied. DDRV was visited to update the original study labor values and personnel grade levels. DDRV complaint processing was considered to be representative of the process at all DLA depots. Prevailing wage grade rates and locality pay were used in cost calculations for all six DLA depots.

3.3.6

SUPPLY CENTER QUALITY ACTIVITIES

The focal point and action point are the supply center quality activities handling complaints. The focal point screens complaints and sets up accountability. The action point directs the processing of the complaint. DLA SPD standards formed the basis for all center quality activities cost computations. Cost were computed, where appropriate for both QDRs and DLA depot complaints. Relative frequencies or probabilities, reflecting the proportion of time specific actions occurred, were obtained from the CDSC files as well as SPD standards. These probabilities included: the proportion of time an exhibit was required for investigation; the probability that a

technical facility or laboratory was employed; and the proportion of time discrepant materiel was sent to either a disposal activity or returned to the contractor. These probabilities were used to calculate expected costs for various activities both within a DLA supply center and at the DCMD level. Due to the variability of probabilities and personnel grades among the different centers, costs were calculated for each center's focal and action points.

3.3.7

SUPPLY CENTER SUPPORT ACTIVITIES

The two major supply center support activities are the Contracting and Production Directorate and the Supply Operations Directorate. Due to numerous reorganizations, these functions might have been renamed or even split up at individual supply centers, however, the functions still exist and are universally recognized by their previous titles. The degree of participation of these center activities depends upon the nature of the complaint and action point decisions. SPD standards and calculated probabilities combined to produce the expected cost of involvement for all center support activities. A general outline of functions performed by center support activities are provided in the technical report. Other activities included in the administrative costs were: the center legal section, the DLA HQ Contract Management Directorate, the center technical operations division and laboratories in support of testing and analysis, and the center Comptroller division/ Defense Finance & Accounting Service, both of which are involved in financial settlements.

3.3.8

DCMC PARTICIPANTS

Costs experienced in the DCMC organization were then considered. Elements addressed were the Quality Assurance Representative (QAR), the Administrative Contracting Officer (ACO), and the regional Product Quality Deficiency Report (PQDR) monitor and the division PQDR monitors. The estimate of QAR costs was derived from analyzing the difference in QAR involvement at a contractor before and after a PQDR was received. This data was developed from QAMIS files. Total DCMC costs were the product of: the sum total of all individual DCMC activity costs and the probability of DCMC involvement. Discrete DCMC costs were developed for each FSC and FSG.

3.4

ADMINISTRATIVE COST CALCULATIONS

Once a nonconforming item is discovered, costs are accumulated at many activities as the quality complaint proceeds through the administrative chain. The complaint cost depends upon who (DLA depot, service maintenance facility, retail supply activity, or ultimate user) initiates the complaint as well as which supply center manages a particular item. For example, the retail supply point complaint cost is the expected cost of all actions performed by all organizations in the administrative chain when a nonconforming item is detected at this supply level. It is not solely the cost experienced by the retail supply point.

The complaint process, regardless of the initiating supply level, may involve other staff activities. The number of participants in the complaint flow depends upon the complexity of the problem, impact on customers, dollar value of the deficient items, and other factors. These participants

may involve any or all of the organizations discussed in section 3.3. We updated costs for each of these activities.

Similar actions take place at each supply center when a complaint surfaces. The procedures followed were assumed to be defined in the appropriate SPD standards. However, since each center is oriented to major commodity groupings, some variability in complaint processing time may be inherent. For example, the administrative and investigative efforts required for certain repair parts may be substantially greater than those necessary to resolve complaints for a commercial "off-the-shelf", item. These differences were accounted for by critical frequencies updated through surveys or derived from the center's CDCS file.

The cost for each supply level (customer, retail supply, service maintenance, DLA depot) for each supply center was computed by multiplying the frequency of occurrence times the associated administrative cost. As the DCMC QAR costs were derived at the FSC and FSG levels, specific administrative costs were developed for each FSC and FSG at each center. A single value representing the costs of a typical complaint for a DLA item was derived through weighting each center's cost with its nonconforming item probability. Results by FSC by center are shown in Appendix A as the administrative component of the total evaluation factor. FSC results were averaged to produce the FSG results, by center, in Appendix B.

3.5

HOLDING COST DETERMINATION

To calculate the holding cost, each record in the CDCS data base coded as a QDR or a DLA depot complaint was analyzed. The materiel cost on the complaint was estimated by multiplying the quantity involved in the complaint and the unit price of the particular item. This estimated material cost represented the amount of money held in suspense awaiting complaint resolution and was utilized as the "principal" from which lost investment opportunity, pure supply costs and total holding costs were generated. Specifics of this analysis are explained in the technical report.

The annual cost rates for holding stock in a suspense mode differ from supply center to supply center. Table 3-2 displays these rates. The source of these factors is the GAO report titled, "Cost Factors Used to Manage Secondary Items", GAO/NSTAD-92-112, May 1992. The cost of holding discrepant material for a QDR depends not only on this annual rate but also on the value of the material involved and the time period for which the QDR was open. We used all three of these bits of data for each QDR to calculate the holding costs specifically associated with QDRs.

Table 3-2. Annual Holding Costs Rates

<u>Center</u>	<u>Rate</u>
DCSC	17.0%
DESC	19.0%
DGSC	17.0%
DISC	18.0%
DPSC (C&T)	18.0%
DPSC (Med)	12.0%

The rate used for the cost of lost opportunity in this study is 2.1 percent, published in OMB memorandum M-94-14 of 10 February 1994, subject: 1994 Discount Rates for OMB circular No. A-94.

For all closed complaints, each holding cost component was computed taking into account the total dollar value of the items on each complaint, the appropriate rate, and the time period during which the complaint was being investigated and resolved. Closed complaints are those which have been resolved. Given that the total dollar value of items on a complaint is "T," the total worth of "TW" of the money committed to the supplies (if the money could have been invested for a period of "m" days) is:

$$TW = T \left(1 + \frac{r}{365} \right)^m$$

where "r" is the appropriate rate, in decimal form (for example, .021 for lost opportunity and .18 for total holding cost for a DISC item).

The cost experienced, C_E , is the difference between this total worth after a period of "m" days and the initial worth "T":

$$C_E = TW - T$$

The following example highlights the computational technique for calculating the total holding costs on a complaint for DISC materiel. The unit price of the item is \$32.50 and the number of nonconforming items is 50. The complaint was received on Julian date 86280 and resolved on Julian date 87025. The total holding cost calculations are as follows:

Total Value of Materiel (T)
\$32.50 per item x 50 items = \$1,625

Total Duration Time of Complaint (m)
The difference (in days) between Julian dates 93025 and 92280 = 111 days

Rate (for DISC) Expressed as Decimal (r) = .18

Total Worth of Money (TW)

$$TW = (\$1625) \left(1 + \frac{.18}{365} \right)^{111 \text{ days}} = \$1,716$$

Total Holding Cost Experienced (C_E)

$$C_E = \$1,716 - \$1,625 = \$91$$

The total holding cost experienced by the government for the materiel on this complaint is \$91.00.

Similarly, the lost opportunity cost was calculated by using the 2.1% rate in the same equation. The pure supply cost is computed as the difference between the total holding cost and the lost opportunity cost.

After computing the holding cost associated with each complaint, all dollar figures were summed to a specific FSC and an average calculated. The Active Contract File (ACF) was used to calculate an average contract value for each FSC and FSG. The average holding costs for each FSC (and FSG) were then expressed as a percentage of the average contract value. The supply center holding costs were generated as weighted averages of the FSC values. The supply center contract value was a simple average of the contract values identified as stock buys. Stock buys are those contracts most often associated with QDRs. The supply center average holding cost is shown as a percent of the average contract value for each supply center in Table 3-1. Detailed results are shown in the technical report.

3.6

IMPLEMENTATION EXAMPLE

The evaluation factor, expressed as the sum of the administrative and the holding costs, is used to evaluate contractor bids. The evaluation factor tables are attached as the appendices to this report. The evaluation factor is displayed graphically in Figure 3-3; the relationship of administrative and holding costs to a proposed contract value is evident.

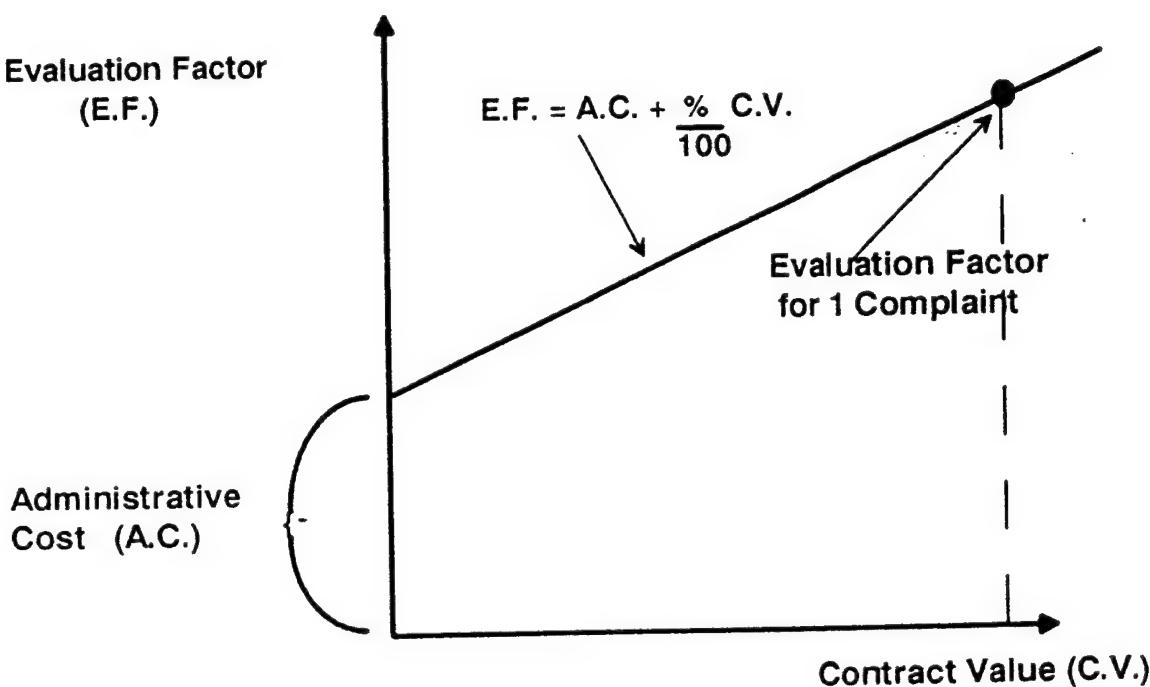


Figure 3.3 Evaluation Factor Determination

The administrative cost is calculated as a fixed cost for each FSC or FSG. The holding cost, however, is variable. It is represented as a percentage of the proposed contract value for a particular item within an FSC or an FSG.

One additional bit of information needed to use the evaluation factor for a contractor is the average number of valid complaints (per contract) experienced for a particular contractor for a specific type of item within an FSC, FSG, or managing center. This number can be computed directly from the Customer Depot Complaint System (CDCS) by the Center Contracting Directorate.

An example will illustrate the implementation procedures.

A firm offers \$20,000 for a DISC requirement for items within FSC 5320. This firm has had an average of 3 valid complaints per contract in the past year for FSC 5320 items. Calculate the total evaluation factor and "true" cost of this proposal as follows:

Evaluation Cost Formula:

$$E.F. = \$532.77 + (.12098 \times \text{Proposed Contract Value})$$

(This formula is taken from Appendix A, p. A-15)

$$\text{Administrative Cost Component} = \$532.77$$

$$\text{Holding Cost Component} (.12098 \times \$20,000) = \$2,420$$

$$\text{Evaluation Factor per Complaint} \$532.77 + \$2,420 = \$2,952.77$$

Total Evaluation Factor

(Total Expected Complaint Cost for this Proposal)

$$= (\text{Average Number of Complaints for FSC 5320 Contracts for this Firm})$$

$$x (\text{Evaluation Factor Per Complaint})$$

$$= 3 \text{ Complaints} \times \$2,953 \text{ per complaint} = \$8,859$$

"True" Cost of Proposal

$$= (\text{Original Offer}) + (\text{Total Evaluation Factor})$$

$$= \$20,000 + \$8,859 = \$28,859$$

Therefore, for this particular firm, an offer of \$20,000 is expected to cost the government nearly \$29,000 based on this firm's complaint history. This "true" cost may be utilized in comparison with the bids of other competing contractors.

SECTION 4 RECOMMENDATIONS

The evaluation factors based on the cost estimates developed in this study should be used at the DLA supply center contracting directorates in the bid evaluation process. Using these evaluation factors will provide a more accurate estimate of the cost of doing business with contractors. By considering these factors in the bid evaluation process, DLA will be able to buy "best value" and thus make more cost-effective contract award decisions.

These factors also provide contracting directorate personnel a target in postaward negotiations with contractors that have submitted nonconforming products. These factors furnish the contracting officer a starting position in negotiations for the voluntary recoupment of costs.

An additional cost component of nonconforming supplies was identified. The cost is that of re-procuring nonconforming supplies judged to be contractor caused for which, however, no recoupment is made. Although the data does not currently exist to calculate this cost, it could be collected for use in the next update of this study.

APPENDIX A

**FEDERAL SUPPLY CLASS FACTORS FOR EVALUATING QUALITY DEFICIENCY
REPORT COSTS**

(BY CENTER AND FSC WITHIN CENTER)

DEFENSE CONSTRUCTION SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
1005	E.F.	= \$449.10	+ (2.643961	x \$_____	
1010	E.F.	= \$449.10	+ (0.228653	x \$_____	
1015	E.F.	= \$449.10	+ (3.329164	x \$_____	
1020	E.F.	= \$449.10	+ (2.295075	x \$_____	
1025	E.F.	= \$449.10	+ (0.984269	x \$_____	
1030	E.F.	= \$449.10	+ (5.638737	x \$_____	
1095	E.F.	= \$449.10	+ (4.345767	x \$_____	
1450	E.F.	= \$449.10	+ (9.789250	x \$_____	
1560	E.F.	= \$449.10	+ (0.015958	x \$_____	
1610	E.F.	= \$458.88	+ (3.386046	x \$_____	
1615	E.F.	= \$458.88	+ (9.991148	x \$_____	
1620	E.F.	= \$458.88	+ (0.881406	x \$_____	
1630	E.F.	= \$458.88	+ (1.316981	x \$_____	
1650	E.F.	= \$458.88	+ (8.827964	x \$_____	
1710	E.F.	= \$449.10	+ (3.807603	x \$_____	
1720	E.F.	= \$449.10	+ (2.485296	x \$_____	
1730	E.F.	= \$458.88	+ (0.965253	x \$_____	
1740	E.F.	= \$458.88	+ (0.501019	x \$_____	
2010	E.F.	= \$449.10	+ (3.485132	x \$_____	
2230	E.F.	= \$449.10	+ (5.638737	x \$_____	
2240	E.F.	= \$449.10	+ (1.179833	x \$_____	
2250	E.F.	= \$449.10	+ (5.638737	x \$_____	
2410	E.F.	= \$449.10	+ (5.638737	x \$_____	
2420	E.F.	= \$449.10	+ (5.638737	x \$_____	
2510	E.F.	= \$445.66	+ (4.197696	x \$_____	
2520	E.F.	= \$445.66	+ (6.621703	x \$_____	
2530	E.F.	= \$445.66	+ (4.254487	x \$_____	
2540	E.F.	= \$445.66	+ (2.112212	x \$_____	
2590	E.F.	= \$445.66	+ (2.000735	x \$_____	
2620	E.F.	= \$449.10	+ (0.056050	x \$_____	
2805	E.F.	= \$452.88	+ (22.092549	x \$_____	
2815	E.F.	= \$452.88	+ (21.594223	x \$_____	
2820	E.F.	= \$452.88	+ (5.638737	x \$_____	
2825	E.F.	= \$452.88	+ (3.723787	x \$_____	
2830	E.F.	= \$452.88	+ (5.638737	x \$_____	
2850	E.F.	= \$452.88	+ (5.638737	x \$_____	
2895	E.F.	= \$452.88	+ (0.053068	x \$_____	

DEFENSE CONSTRUCTION SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	=	ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
2910	E.F.	=	\$452.88	+ (9.863054	x \$ _____)	
2920	E.F.	=	\$452.88	+ (1.693790	x \$ _____)	
2930	E.F.	=	\$452.88	+ (0.678323	x \$ _____)	
2940	E.F.	=	\$452.88	+ (3.812394	x \$ _____)	
2990	E.F.	=	\$452.88	+ (13.177908	x \$ _____)	
3010	E.F.	=	\$451.74	+ (3.519786	x \$ _____)	
3020	E.F.	=	\$451.74	+ (6.372651	x \$ _____)	
3030	E.F.	=	\$451.74	+ (1.208215	x \$ _____)	
3040	E.F.	=	\$451.74	+ (5.350779	x \$ _____)	
3710	E.F.	=	\$449.10	+ (5.638737	x \$ _____)	
3720	E.F.	=	\$449.10	+ (5.638737	x \$ _____)	
3730	E.F.	=	\$449.10	+ (5.638737	x \$ _____)	
3740	E.F.	=	\$449.10	+ (1.061201	x \$ _____)	
3760	E.F.	=	\$449.10	+ (5.638737	x \$ _____)	
3770	E.F.	=	\$449.10	+ (0.042868	x \$ _____)	
3805	E.F.	=	\$449.10	+ (9.012258	x \$ _____)	
3810	E.F.	=	\$449.10	+ (0.069134	x \$ _____)	
3815	E.F.	=	\$449.10	+ (13.203417	x \$ _____)	
3820	E.F.	=	\$449.10	+ (3.986892	x \$ _____)	
3825	E.F.	=	\$449.10	+ (0.384116	x \$ _____)	
3830	E.F.	=	\$449.10	+ (3.833457	x \$ _____)	
3835	E.F.	=	\$449.10	+ (1.031642	x \$ _____)	
3895	E.F.	=	\$449.10	+ (0.288742	x \$ _____)	
3910	E.F.	=	\$449.10	+ (10.761793	x \$ _____)	
3915	E.F.	=	\$449.10	+ (5.638737	x \$ _____)	
3930	E.F.	=	\$449.10	+ (4.787158	x \$ _____)	
3950	E.F.	=	\$449.10	+ (2.688250	x \$ _____)	
3960	E.F.	=	\$449.10	+ (2.997579	x \$ _____)	
4140	E.F.	=	\$449.10	+ (5.638737	x \$ _____)	
4210	E.F.	=	\$452.88	+ (4.291319	x \$ _____)	
4220	E.F.	=	\$452.88	+ (1.344628	x \$ _____)	
4310	E.F.	=	\$452.88	+ (1.791310	x \$ _____)	
4320	E.F.	=	\$452.88	+ (7.351192	x \$ _____)	
4330	E.F.	=	\$452.88	+ (15.855198	x \$ _____)	
4410	E.F.	=	\$449.10	+ (10.900874	x \$ _____)	
4420	E.F.	=	\$449.10	+ (23.731255	x \$ _____)	
4430	E.F.	=	\$449.10	+ (5.638737	x \$ _____)	
4440	E.F.	=	\$449.10	+ (1.648090	x \$ _____)	

DEFENSE CONSTRUCTION SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
4460	E.F.	= \$449.10	+ (1.853933	x \$ _____)	
4510	E.F.	= \$446.13	+ (1.409907	x \$ _____)	
4520	E.F.	= \$446.13	+ (2.197017	x \$ _____)	
4530	E.F.	= \$446.13	+ (0.540570	x \$ _____)	
4540	E.F.	= \$446.13	+ (19.217666	x \$ _____)	
4610	E.F.	= \$449.10	+ (1.047284	x \$ _____)	
4620	E.F.	= \$449.10	+ (0.201719	x \$ _____)	
4630	E.F.	= \$449.10	+ (0.380944	x \$ _____)	
4710	E.F.	= \$446.13	+ (6.092298	x \$ _____)	
4720	E.F.	= \$446.13	+ (8.566247	x \$ _____)	
4730	E.F.	= \$446.13	+ (2.819827	x \$ _____)	
4810	E.F.	= \$447.77	+ (4.269707	x \$ _____)	
4820	E.F.	= \$447.77	+ (6.478527	x \$ _____)	
4910	E.F.	= \$447.77	+ (3.705269	x \$ _____)	
4930	E.F.	= \$447.77	+ (1.546184	x \$ _____)	
4940	E.F.	= \$447.77	+ (4.349220	x \$ _____)	
5330	E.F.	= \$449.10	+ (0.424680	x \$ _____)	
5340	E.F.	= \$449.10	+ (0.125491	x \$ _____)	
5360	E.F.	= \$449.10	+ (0.177473	x \$ _____)	
5365	E.F.	= \$449.10	+ (0.009950	x \$ _____)	
5410	E.F.	= \$449.10	+ (0.088580	x \$ _____)	
5411	E.F.	= \$449.10	+ (5.638737	x \$ _____)	
5420	E.F.	= \$449.10	+ (8.815170	x \$ _____)	
5430	E.F.	= \$449.10	+ (25.000000	x \$ _____)	
5440	E.F.	= \$449.10	+ (8.982585	x \$ _____)	
5445	E.F.	= \$449.10	+ (7.095835	x \$ _____)	
5450	E.F.	= \$449.10	+ (0.256581	x \$ _____)	
5510	E.F.	= \$448.30	+ (3.126970	x \$ _____)	
5520	E.F.	= \$448.30	+ (5.638737	x \$ _____)	
5530	E.F.	= \$448.30	+ (4.039873	x \$ _____)	
5660	E.F.	= \$449.10	+ (1.362569	x \$ _____)	
5680	E.F.	= \$449.10	+ (5.638737	x \$ _____)	
5995	E.F.	= \$449.10	+ (5.776216	x \$ _____)	
6695	E.F.	= \$449.10	+ (0.110937	x \$ _____)	

DEFENSE ELECTRONICS SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
1210	E.F.	= \$660.79	+ (8.132926	x \$_____	
1220	E.F.	= \$660.79	+ (0.340902	x \$_____	
1240	E.F.	= \$660.79	+ (2.642380	x \$_____	
1260	E.F.	= \$660.79	+ (8.132926	x \$_____	
1265	E.F.	= \$660.79	+ (6.855967	x \$_____	
1270	E.F.	= \$660.79	+ (11.191317	x \$_____	
1280	E.F.	= \$660.79	+ (3.209813	x \$_____	
1285	E.F.	= \$660.79	+ (0.666154	x \$_____	
1290	E.F.	= \$660.79	+ (0.892816	x \$_____	
1420	E.F.	= \$660.79	+ (1.701093	x \$_____	
1430	E.F.	= \$660.79	+ (2.892252	x \$_____	
1440	E.F.	= \$660.79	+ (11.298950	x \$_____	
1660	E.F.	= \$660.79	+ (3.370765	x \$_____	
2040	E.F.	= \$660.79	+ (2.544912	x \$_____	
3040	E.F.	= \$660.79	+ (0.1111716	x \$_____	
4320	E.F.	= \$660.79	+ (0.643755	x \$_____	
4931	E.F.	= \$660.79	+ (1.485112	x \$_____	
4935	E.F.	= \$660.79	+ (1.869975	x \$_____	
5340	E.F.	= \$660.79	+ (0.493035	x \$_____	
5805	E.F.	= \$733.54	+ (2.383058	x \$_____	
5810	E.F.	= \$660.79	+ (1.489726	x \$_____	
5815	E.F.	= \$733.54	+ (14.066429	x \$_____	
5820	E.F.	= \$733.54	+ (1.744955	x \$_____	
5821	E.F.	= \$733.54	+ (5.017230	x \$_____	
5825	E.F.	= \$733.54	+ (0.220666	x \$_____	
5826	E.F.	= \$733.54	+ (0.472765	x \$_____	
5830	E.F.	= \$733.54	+ (0.874311	x \$_____	
5831	E.F.	= \$733.54	+ (0.393802	x \$_____	
5835	E.F.	= \$733.54	+ (1.242095	x \$_____	
5836	E.F.	= \$733.54	+ (0.271079	x \$_____	
5840	E.F.	= \$733.54	+ (2.532458	x \$_____	
5841	E.F.	= \$733.54	+ (1.029048	x \$_____	
5845	E.F.	= \$733.54	+ (0.673456	x \$_____	
5850	E.F.	= \$733.54	+ (10.194694	x \$_____	
5855	E.F.	= \$733.54	+ (2.031961	x \$_____	
5860	E.F.	= \$733.54	+ (25.000000	x \$_____	
5865	E.F.	= \$733.54	+ (3.579018	x \$_____	

DEFENSE ELECTRONICS SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
5895	E.F.	= \$733.54	+ (5.092778	x \$_____)	
5905	E.F.	= \$646.52	+ (3.658888	x \$_____)	
5910	E.F.	= \$646.52	+ (5.951932	x \$_____)	
5915	E.F.	= \$646.52	+ (12.310433	x \$_____)	
5920	E.F.	= \$639.71	+ (2.423736	x \$_____)	
5925	E.F.	= \$639.71	+ (4.153283	x \$_____)	
5930	E.F.	= \$639.71	+ (4.392827	x \$_____)	
5935	E.F.	= \$639.71	+ (25.000000	x \$_____)	
5945	E.F.	= \$639.71	+ (2.422922	x \$_____)	
5950	E.F.	= \$639.71	+ (2.889372	x \$_____)	
5955	E.F.	= \$639.71	+ (5.082891	x \$_____)	
5960	E.F.	= \$690.77	+ (1.708487	x \$_____)	
5961	E.F.	= \$646.52	+ (6.497155	x \$_____)	
5962	E.F.	= \$690.77	+ (25.000000	x \$_____)	
5963	E.F.	= \$660.79	+ (2.945515	x \$_____)	
5965	E.F.	= \$733.54	+ (7.481795	x \$_____)	
5970	E.F.	= \$660.79	+ (6.604681	x \$_____)	
5975	E.F.	= \$660.79	+ (14.151321	x \$_____)	
5980	E.F.	= \$660.79	+ (3.885160	x \$_____)	
5985	E.F.	= \$733.54	+ (4.204950	x \$_____)	
5990	E.F.	= \$733.54	+ (3.783771	x \$_____)	
5998	E.F.	= \$660.79	+ (3.445927	x \$_____)	
5999	E.F.	= \$733.54	+ (16.258561	x \$_____)	
6010	E.F.	= \$660.79	+ (8.132926	x \$_____)	
6015	E.F.	= \$660.79	+ (10.614499	x \$_____)	
6020	E.F.	= \$660.79	+ (0.093769	x \$_____)	
6030	E.F.	= \$660.79	+ (8.132926	x \$_____)	
6060	E.F.	= \$660.79	+ (0.944839	x \$_____)	
6070	E.F.	= \$660.79	+ (8.132926	x \$_____)	
6080	E.F.	= \$660.79	+ (8.132926	x \$_____)	
6110	E.F.	= \$660.79	+ (0.210652	x \$_____)	
6130	E.F.	= \$660.79	+ (4.303475	x \$_____)	
6150	E.F.	= \$660.79	+ (4.689253	x \$_____)	
6625	E.F.	= \$690.77	+ (12.189415	x \$_____)	
7010	E.F.	= \$660.79	+ (11.625634	x \$_____)	
7020	E.F.	= \$660.79	+ (23.725079	x \$_____)	
7021	E.F.	= \$660.79	+ (1.406837	x \$_____)	

DEFENSE ELECTRONICS SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
7025	E.F.	= \$660.79	+ (1.973251	x \$_____)	
7030	E.F.	= \$660.79	+ (2.988848	x \$_____)	
7035	E.F.	= \$660.79	+ (2.682051	x \$_____)	
7040	E.F.	= \$660.79	+ (0.009513	x \$_____)	
7045	E.F.	= \$660.79	+ (6.386211	x \$_____)	
7050	E.F.	= \$660.79	+ (13.048057	x \$_____)	
7510	E.F.	= \$660.79	+ (4.106585	x \$_____)	
7530	E.F.	= \$660.79	+ (0.404395	x \$_____)	
8140	E.F.	= \$660.79	+ (14.829949	x \$_____)	

DEFENSE GENERAL SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x PROPOSED CONTRACT) VALUE
1040	E.F.	= \$527.23	+ (5.141860	x \$_____
1045	E.F.	= \$527.23	+ (1.576240	x \$_____
1055	E.F.	= \$527.23	+ (8.038266	x \$_____
1075	E.F.	= \$527.23	+ (25.000000	x \$_____
1080	E.F.	= \$527.23	+ (5.141860	x \$_____
1090	E.F.	= \$527.23	+ (25.000000	x \$_____
1560	E.F.	= \$527.23	+ (7.821068	x \$_____
1670	E.F.	= \$527.23	+ (0.815813	x \$_____
1680	E.F.	= \$527.23	+ (1.433530	x \$_____
1820	E.F.	= \$527.23	+ (5.141860	x \$_____
1830	E.F.	= \$527.23	+ (5.141860	x \$_____
1840	E.F.	= \$527.23	+ (5.141860	x \$_____
1850	E.F.	= \$527.23	+ (5.141860	x \$_____
1860	E.F.	= \$527.23	+ (5.141860	x \$_____
2030	E.F.	= \$527.23	+ (0.130098	x \$_____
2040	E.F.	= \$527.23	+ (0.602398	x \$_____
2050	E.F.	= \$527.23	+ (1.400112	x \$_____
2060	E.F.	= \$527.23	+ (5.141860	x \$_____
2090	E.F.	= \$527.23	+ (0.406164	x \$_____
3210	E.F.	= \$527.23	+ (5.141860	x \$_____
3220	E.F.	= \$527.23	+ (0.082080	x \$_____
3230	E.F.	= \$527.23	+ (25.000000	x \$_____
3405	E.F.	= \$549.60	+ (0.063375	x \$_____
3408	E.F.	= \$549.60	+ (5.141860	x \$_____
3410	E.F.	= \$549.60	+ (5.141860	x \$_____
3411	E.F.	= \$549.60	+ (5.141860	x \$_____
3412	E.F.	= \$549.60	+ (5.141860	x \$_____
3413	E.F.	= \$549.60	+ (0.130808	x \$_____
3414	E.F.	= \$549.60	+ (5.141860	x \$_____
3415	E.F.	= \$549.60	+ (0.614982	x \$_____
3416	E.F.	= \$549.60	+ (5.141860	x \$_____
3417	E.F.	= \$549.60	+ (0.156256	x \$_____
3418	E.F.	= \$549.60	+ (5.141860	x \$_____
3419	E.F.	= \$549.60	+ (0.457224	x \$_____
3422	E.F.	= \$549.60	+ (5.141860	x \$_____
3424	E.F.	= \$549.60	+ (5.141860	x \$_____
3426	E.F.	= \$549.60	+ (25.000000	x \$_____

DEFENSE GENERAL SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
3431	E.F.	\$549.60	+ (0.703292	x \$_____	
3432	E.F.	\$549.60	+ (11.569970	x \$_____	
3433	E.F.	\$549.60	+ (20.817484	x \$_____	
3436	E.F.	\$549.60	+ (5.141860	x \$_____	
3438	E.F.	\$549.60	+ (1.362069	x \$_____	
3439	E.F.	\$549.60	+ (3.878186	x \$_____	
3441	E.F.	\$549.60	+ (4.675583	x \$_____	
3442	E.F.	\$549.60	+ (5.141860	x \$_____	
3443	E.F.	\$549.60	+ (5.141860	x \$_____	
3444	E.F.	\$549.60	+ (0.186247	x \$_____	
3445	E.F.	\$549.60	+ (0.019099	x \$_____	
3446	E.F.	\$549.60	+ (0.036910	x \$_____	
3447	E.F.	\$549.60	+ (5.141860	x \$_____	
3448	E.F.	\$549.60	+ (5.141860	x \$_____	
3449	E.F.	\$549.60	+ (5.141860	x \$_____	
3450	E.F.	\$549.60	+ (0.540912	x \$_____	
3455	E.F.	\$549.60	+ (8.909276	x \$_____	
3456	E.F.	\$549.60	+ (0.352284	x \$_____	
3460	E.F.	\$549.60	+ (3.261905	x \$_____	
3461	E.F.	\$549.60	+ (5.141860	x \$_____	
3465	E.F.	\$549.60	+ (25.000000	x \$_____	
3470	E.F.	\$549.60	+ (5.141860	x \$_____	
3510	E.F.	\$527.23	+ (25.000000	x \$_____	
3520	E.F.	\$527.23	+ (5.141860	x \$_____	
3530	E.F.	\$527.23	+ (1.482891	x \$_____	
3605	E.F.	\$527.23	+ (5.141860	x \$_____	
3610	E.F.	\$527.23	+ (0.660962	x \$_____	
3611	E.F.	\$527.23	+ (0.021530	x \$_____	
3615	E.F.	\$527.23	+ (0.033099	x \$_____	
3620	E.F.	\$527.23	+ (5.141860	x \$_____	
3625	E.F.	\$527.23	+ (5.141860	x \$_____	
3630	E.F.	\$527.23	+ (5.141860	x \$_____	
3635	E.F.	\$527.23	+ (0.318732	x \$_____	
3640	E.F.	\$527.23	+ (5.141860	x \$_____	
3645	E.F.	\$527.23	+ (5.141860	x \$_____	
3650	E.F.	\$527.23	+ (5.141860	x \$_____	
3655	E.F.	\$527.23	+ (0.398127	x \$_____	

DEFENSE GENERAL SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
3660	E.F.	\$527.23	+	(5.141860	x \$_____
3670	E.F.	\$527.23	+	(5.141860	x \$_____
3680	E.F.	\$527.23	+	(0.512753	x \$_____
3685	E.F.	\$527.23	+	(5.141860	x \$_____
3690	E.F.	\$527.23	+	(5.141860	x \$_____
3693	E.F.	\$527.23	+	(0.076930	x \$_____
3694	E.F.	\$527.23	+	(0.624882	x \$_____
3695	E.F.	\$527.23	+	(0.028039	x \$_____
3920	E.F.	\$527.23	+	(0.119546	x \$_____
3940	E.F.	\$527.23	+	(4.323672	x \$_____
3990	E.F.	\$527.23	+	(3.315584	x \$_____
4110	E.F.	\$521.02	+	(0.478333	x \$_____
4120	E.F.	\$521.02	+	(0.110519	x \$_____
4130	E.F.	\$521.02	+	(4.473668	x \$_____
4140	E.F.	\$521.02	+	(1.568299	x \$_____
4230	E.F.	\$506.70	+	(0.357451	x \$_____
4240	E.F.	\$506.70	+	(2.687799	x \$_____
4920	E.F.	\$555.40	+	(1.568337	x \$_____
4921	E.F.	\$555.40	+	(5.141860	x \$_____
4923	E.F.	\$555.40	+	(5.141860	x \$_____
4925	E.F.	\$555.40	+	(5.141860	x \$_____
4927	E.F.	\$555.40	+	(5.141860	x \$_____
4933	E.F.	\$555.40	+	(13.930144	x \$_____
4960	E.F.	\$555.40	+	(5.141860	x \$_____
5220	E.F.	\$527.23	+	(0.643182	x \$_____
5280	E.F.	\$527.23	+	(5.141860	x \$_____
5310	E.F.	\$527.23	+	(0.000000	x \$_____
5315	E.F.	\$527.23	+	(0.000000	x \$_____
5330	E.F.	\$527.23	+	(0.005473	x \$_____
5340	E.F.	\$527.23	+	(0.000193	x \$_____
5355	E.F.	\$527.23	+	(4.291890	x \$_____
5365	E.F.	\$527.23	+	(0.004760	x \$_____
5935	E.F.	\$527.23	+	(1.525298	x \$_____
5940	E.F.	\$511.98	+	(3.404489	x \$_____
5950	E.F.	\$527.23	+	(0.524322	x \$_____
5970	E.F.	\$511.98	+	(2.738811	x \$_____
5975	E.F.	\$515.55	+	(4.490430	x \$_____

DEFENSE GENERAL SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT VALUE
5977	E.F.	= \$515.55	+ (2.688477	x \$_____	
5995	E.F.	= \$511.98	+ (4.768988	x \$_____	
5998	E.F.	= \$527.23	+ (0.024994	x \$_____	
6105	E.F.	= \$555.40	+ (1.080900	x \$_____	
6110	E.F.	= \$515.55	+ (0.736579	x \$_____	
6115	E.F.	= \$555.40	+ (1.091976	x \$_____	
6116	E.F.	= \$527.23	+ (5.141860	x \$_____	
6120	E.F.	= \$527.23	+ (0.746352	x \$_____	
6125	E.F.	= \$527.23	+ (0.501346	x \$_____	
6130	E.F.	= \$555.40	+ (1.822358	x \$_____	
6135	E.F.	= \$527.23	+ (1.024477	x \$_____	
6140	E.F.	= \$555.40	+ (0.774364	x \$_____	
6150	E.F.	= \$515.55	+ (2.110026	x \$_____	
6160	E.F.	= \$527.23	+ (0.014379	x \$_____	
6210	E.F.	= \$511.98	+ (3.528972	x \$_____	
6220	E.F.	= \$511.98	+ (4.562212	x \$_____	
6230	E.F.	= \$511.98	+ (0.362486	x \$_____	
6240	E.F.	= \$511.98	+ (8.592309	x \$_____	
6250	E.F.	= \$511.98	+ (1.665673	x \$_____	
6260	E.F.	= \$511.98	+ (0.536658	x \$_____	
6310	E.F.	= \$527.23	+ (5.141860	x \$_____	
6320	E.F.	= \$527.23	+ (1.366949	x \$_____	
6330	E.F.	= \$527.23	+ (5.141860	x \$_____	
6340	E.F.	= \$527.23	+ (0.658662	x \$_____	
6350	E.F.	= \$527.23	+ (0.732697	x \$_____	
6605	E.F.	= \$523.57	+ (0.617635	x \$_____	
6610	E.F.	= \$523.57	+ (1.491990	x \$_____	
6615	E.F.	= \$523.57	+ (2.344214	x \$_____	
6620	E.F.	= \$523.57	+ (5.131145	x \$_____	
6635	E.F.	= \$523.57	+ (2.195754	x \$_____	
6636	E.F.	= \$523.57	+ (5.141860	x \$_____	
6645	E.F.	= \$523.57	+ (6.332000	x \$_____	
6650	E.F.	= \$523.57	+ (5.162156	x \$_____	
6655	E.F.	= \$523.57	+ (0.110390	x \$_____	
6660	E.F.	= \$523.57	+ (1.269136	x \$_____	
6665	E.F.	= \$523.57	+ (1.134474	x \$_____	
6670	E.F.	= \$523.57	+ (10.891711	x \$_____	

DEFENSE GENERAL SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	=	ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
6675	E.F.	=	\$523.57	+ (1.728167	x \$_____	
6680	E.F.	=	\$523.57	+ (0.749823	x \$_____	
6685	E.F.	=	\$523.57	+ (2.687859	x \$_____	
6695	E.F.	=	\$523.57	+ (1.068317	x \$_____	
6710	E.F.	=	\$523.57	+ (5.141860	x \$_____	
6720	E.F.	=	\$523.57	+ (1.651677	x \$_____	
6730	E.F.	=	\$523.57	+ (15.118716	x \$_____	
6740	E.F.	=	\$523.57	+ (0.659402	x \$_____	
6750	E.F.	=	\$523.57	+ (5.882901	x \$_____	
6760	E.F.	=	\$523.57	+ (13.845204	x \$_____	
6770	E.F.	=	\$523.57	+ (0.005181	x \$_____	
6780	E.F.	=	\$523.57	+ (5.141860	x \$_____	
6810	E.F.	=	\$555.40	+ (1.977213	x \$_____	
6820	E.F.	=	\$555.40	+ (25.000000	x \$_____	
6830	E.F.	=	\$555.40	+ (0.617337	x \$_____	
6840	E.F.	=	\$555.40	+ (2.307162	x \$_____	
6850	E.F.	=	\$555.40	+ (2.721558	x \$_____	
6910	E.F.	=	\$527.23	+ (5.141860	x \$_____	
6920	E.F.	=	\$527.23	+ (6.807689	x \$_____	
6930	E.F.	=	\$527.23	+ (0.110421	x \$_____	
6940	E.F.	=	\$527.23	+ (4.523833	x \$_____	
7105	E.F.	=	\$527.23	+ (0.075394	x \$_____	
7110	E.F.	=	\$527.23	+ (0.000057	x \$_____	
7125	E.F.	=	\$527.23	+ (0.261466	x \$_____	
7195	E.F.	=	\$527.23	+ (0.049007	x \$_____	
7240	E.F.	=	\$527.23	+ (0.525606	x \$_____	
7310	E.F.	=	\$555.40	+ (0.775937	x \$_____	
7320	E.F.	=	\$555.40	+ (1.653910	x \$_____	
7340	E.F.	=	\$527.23	+ (0.000482	x \$_____	
7350	E.F.	=	\$527.23	+ (0.094172	x \$_____	
7360	E.F.	=	\$555.40	+ (0.082440	x \$_____	
7450	E.F.	=	\$527.23	+ (5.141860	x \$_____	
7530	E.F.	=	\$527.23	+ (0.025695	x \$_____	
7610	E.F.	=	\$532.06	+ (0.485112	x \$_____	
7630	E.F.	=	\$532.06	+ (5.141860	x \$_____	
7640	E.F.	=	\$532.06	+ (1.321426	x \$_____	
7650	E.F.	=	\$532.06	+ (5.141860	x \$_____	

DEFENSE GENERAL SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	=	ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
7660	E.F.	=	\$532.06	+ (5.141860	x \$ _____)	
7670	E.F.	=	\$532.06	+ (5.141860	x \$ _____)	
7690	E.F.	=	\$532.06	+ (0.715783	x \$ _____)	
8110	E.F.	=	\$527.23	+ (0.294252	x \$ _____)	
8120	E.F.	=	\$527.23	+ (1.007789	x \$ _____)	
8125	E.F.	=	\$527.23	+ (0.101618	x \$ _____)	
8130	E.F.	=	\$527.23	+ (0.080356	x \$ _____)	
8140	E.F.	=	\$527.23	+ (3.203651	x \$ _____)	
8145	E.F.	=	\$527.23	+ (5.141860	x \$ _____)	
9110	E.F.	=	\$527.23	+ (0.052006	x \$ _____)	
9150	E.F.	=	\$527.23	+ (0.990370	x \$ _____)	
9160	E.F.	=	\$527.23	+ (6.800165	x \$ _____)	
9310	E.F.	=	\$527.23	+ (0.033848	x \$ _____)	
9320	E.F.	=	\$555.40	+ (2.738962	x \$ _____)	
9330	E.F.	=	\$555.40	+ (1.157703	x \$ _____)	
9340	E.F.	=	\$555.40	+ (0.386877	x \$ _____)	
9350	E.F.	=	\$555.40	+ (0.103856	x \$ _____)	
9390	E.F.	=	\$555.40	+ (1.682676	x \$ _____)	
9440	E.F.	=	\$527.23	+ (5.141860	x \$ _____)	
9450	E.F.	=	\$527.23	+ (5.141860	x \$ _____)	
9620	E.F.	=	\$527.23	+ (5.141860	x \$ _____)	
9925	E.F.	=	\$527.23	+ (0.122631	x \$ _____)	
9930	E.F.	=	\$527.23	+ (5.141860	x \$ _____)	
9999	E.F.	=	\$527.23	+ (5.141860	x \$ _____)	

DEFENSE INDUSTRIAL SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	=	ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
1560	E.F.	=	\$570.11	+ (0.874239	x \$_____	
1670	E.F.	=	\$570.11	+ (0.032407	x \$_____	
1680	E.F.	=	\$570.11	+ (1.118334	x \$_____	
2020	E.F.	=	\$538.42	+ (12.805455	x \$_____	
2030	E.F.	=	\$538.42	+ (12.805455	x \$_____	
2040	E.F.	=	\$538.42	+ (0.070088	x \$_____	
2810	E.F.	=	\$570.11	+ (3.481201	x \$_____	
2835	E.F.	=	\$570.11	+ (2.311283	x \$_____	
2840	E.F.	=	\$570.11	+ (0.894785	x \$_____	
2845	E.F.	=	\$570.11	+ (12.805455	x \$_____	
2915	E.F.	=	\$538.42	+ (1.966617	x \$_____	
2925	E.F.	=	\$538.42	+ (0.531598	x \$_____	
2935	E.F.	=	\$538.42	+ (0.359836	x \$_____	
2945	E.F.	=	\$538.42	+ (0.997443	x \$_____	
2950	E.F.	=	\$538.42	+ (1.105867	x \$_____	
2995	E.F.	=	\$538.42	+ (4.314637	x \$_____	
3010	E.F.	=	\$538.42	+ (0.029881	x \$_____	
3110	E.F.	=	\$541.08	+ (4.712192	x \$_____	
3120	E.F.	=	\$541.08	+ (4.683930	x \$_____	
3130	E.F.	=	\$541.08	+ (2.672011	x \$_____	
3940	E.F.	=	\$538.42	+ (12.805455	x \$_____	
4010	E.F.	=	\$532.77	+ (8.651624	x \$_____	
4020	E.F.	=	\$532.77	+ (6.185490	x \$_____	
4030	E.F.	=	\$532.77	+ (4.088069	x \$_____	
4730	E.F.	=	\$538.42	+ (0.003671	x \$_____	
5305	E.F.	=	\$532.77	+ (9.243294	x \$_____	
5306	E.F.	=	\$532.77	+ (8.910400	x \$_____	
5307	E.F.	=	\$532.77	+ (8.936032	x \$_____	
5310	E.F.	=	\$532.77	+ (4.875085	x \$_____	
5315	E.F.	=	\$532.77	+ (9.847811	x \$_____	
5320	E.F.	=	\$532.77	+ (12.098281	x \$_____	
5325	E.F.	=	\$532.77	+ (6.347155	x \$_____	
5330	E.F.	=	\$532.77	+ (3.731134	x \$_____	
5335	E.F.	=	\$532.77	+ (12.805455	x \$_____	
5340	E.F.	=	\$532.77	+ (7.962476	x \$_____	
5355	E.F.	=	\$532.77	+ (12.805455	x \$_____	
5360	E.F.	=	\$532.77	+ (6.433847	x \$_____	

DEFENSE INDUSTRIAL SUPPLY CENTER

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
5365	E.F.	\$532.77	+	(9.874497	x \$_____
5995	E.F.	\$538.42	+	(0.235582	x \$_____
6145	E.F.	\$521.71	+	(25.000000	x \$_____
9505	E.F.	\$570.11	+	(4.807119	x \$_____
9510	E.F.	\$570.11	+	(2.560760	x \$_____
9515	E.F.	\$570.11	+	(8.857405	x \$_____
9520	E.F.	\$570.11	+	(0.604105	x \$_____
9525	E.F.	\$570.11	+	(0.575591	x \$_____
9530	E.F.	\$570.11	+	(1.235454	x \$_____
9535	E.F.	\$570.11	+	(1.657350	x \$_____
9540	E.F.	\$570.11	+	(1.425958	x \$_____
9545	E.F.	\$570.11	+	(12.805455	x \$_____
9610	E.F.	\$538.42	+	(12.805455	x \$_____
9630	E.F.	\$538.42	+	(12.805455	x \$_____
9640	E.F.	\$538.42	+	(0.126708	x \$_____
9650	E.F.	\$538.42	+	(6.305769	x \$_____
9660	E.F.	\$538.42	+	(12.805455	x \$_____
9670	E.F.	\$538.42	+	(12.805455	x \$_____
9680	E.F.	\$538.42	+	(12.805455	x \$_____

DEFENSE PERSONNEL SUPPORT CENTER
CLOTHING & TEXTILES

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	=	ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
7210	E.F.	=	\$1,938.06	(0.301829	x \$_____)
8305	E.F.	=	\$1,938.06	(0.190952	x \$_____)
8310	E.F.	=	\$1,938.06	(7.457417	x \$_____)
8315	E.F.	=	\$1,938.06	(0.222329	x \$_____)
8320	E.F.	=	\$1,938.06	(0.065926	x \$_____)
8325	E.F.	=	\$1,938.06	(0.065926	x \$_____)
8330	E.F.	=	\$1,938.06	(0.073522	x \$_____)
8335	E.F.	=	\$1,938.06	(0.000000	x \$_____)
8340	E.F.	=	\$1,938.06	(0.632426	x \$_____)
8345	E.F.	=	\$1,938.06	(1.145656	x \$_____)
8405	E.F.	=	\$1,948.26	(0.038621	x \$_____)
8410	E.F.	=	\$1,948.26	(0.061420	x \$_____)
8415	E.F.	=	\$1,588.61	(0.034917	x \$_____)
8420	E.F.	=	\$1,948.26	(0.015766	x \$_____)
8425	E.F.	=	\$1,938.06	(0.065926	x \$_____)
8430	E.F.	=	\$2,127.07	(0.020440	x \$_____)
8435	E.F.	=	\$2,127.07	(0.000382	x \$_____)
8440	E.F.	=	\$1,948.26	(0.212673	x \$_____)
8445	E.F.	=	\$1,938.06	(0.000545	x \$_____)
8450	E.F.	=	\$1,938.06	(0.065926	x \$_____)
8455	E.F.	=	\$1,948.26	(0.587153	x \$_____)
8460	E.F.	=	\$1,938.06	(0.056156	x \$_____)
8465	E.F.	=	\$1,588.61	(0.220269	x \$_____)
8470	E.F.	=	\$1,938.06	(0.278797	x \$_____)
8475	E.F.	=	\$1,938.06	(0.065926	x \$_____)
9420	E.F.	=	\$1,938.06	(0.065926	x \$_____)
9430	E.F.	=	\$1,938.06	(0.065926	x \$_____)

DEFENSE PERSONNEL SUPPORT CENTER
MEDICAL

FEDERAL SUPPLY CLASS	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x PROPOSED CONTRACT) VALUE
4110	E.F.	= \$694.22	+ (0.031091	x \$_____
4240	E.F.	= \$694.22	+ (1.471786	x \$_____
4610	E.F.	= \$694.22	+ (0.038613	x \$_____
5340	E.F.	= \$694.22	+ (1.449656	x \$_____
6135	E.F.	= \$694.22	+ (0.491392	x \$_____
6140	E.F.	= \$694.22	+ (0.475154	x \$_____
6230	E.F.	= \$694.22	+ (0.252661	x \$_____
6505	E.F.	= \$719.75	+ (1.160441	x \$_____
6508	E.F.	= \$694.22	+ (1.471786	x \$_____
6510	E.F.	= \$719.75	+ (0.705978	x \$_____
6515	E.F.	= \$719.75	+ (3.447993	x \$_____
6520	E.F.	= \$666.34	+ (4.189094	x \$_____
6525	E.F.	= \$666.34	+ (0.206636	x \$_____
6530	E.F.	= \$680.59	+ (2.450910	x \$_____
6532	E.F.	= \$638.03	+ (2.715415	x \$_____
6540	E.F.	= \$666.34	+ (2.664979	x \$_____
6545	E.F.	= \$694.22	+ (0.950302	x \$_____
6550	E.F.	= \$719.75	+ (1.043081	x \$_____
6630	E.F.	= \$666.34	+ (1.455390	x \$_____
6640	E.F.	= \$719.75	+ (1.004765	x \$_____
6645	E.F.	= \$694.22	+ (5.928415	x \$_____
6650	E.F.	= \$694.22	+ (0.700353	x \$_____
6665	E.F.	= \$694.22	+ (0.741836	x \$_____
6670	E.F.	= \$694.22	+ (0.002122	x \$_____
6680	E.F.	= \$694.22	+ (0.496034	x \$_____
6695	E.F.	= \$694.22	+ (1.731731	x \$_____
6810	E.F.	= \$694.22	+ (0.021716	x \$_____
6830	E.F.	= \$694.22	+ (4.321787	x \$_____
6840	E.F.	= \$694.22	+ (1.899590	x \$_____
6850	E.F.	= \$694.22	+ (0.176932	x \$_____
6910	E.F.	= \$694.22	+ (0.461148	x \$_____
7110	E.F.	= \$694.22	+ (1.471786	x \$_____
7210	E.F.	= \$694.22	+ (1.032145	x \$_____

**DEFENSE PERSONNEL SUPPORT CENTER
MEDICAL**

FEDERAL SUPPLY GROUP	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT)	x	PROPOSED CONTRACT VALUE
7510	E.F.	= \$694.22	+ (0.238428	x \$ _____	
7690	E.F.	= \$694.22	+ (2.227532	x \$ _____	
8105	E.F.	= \$694.22	+ (0.650556	x \$ _____	
8115	E.F.	= \$694.22	+ (0.058717	x \$ _____	
8120	E.F.	= \$694.22	+ (2.894588	x \$ _____	
8465	E.F.	= \$694.22	+ (0.154254	x \$ _____	
8540	E.F.	= \$694.22	+ (0.184594	x \$ _____	
8820	E.F.	= \$694.22	+ (1.471786	x \$ _____	
8940	E.F.	= \$694.22	+ (0.075630	x \$ _____	
9410	E.F.	= \$694.22	+ (1.471786	x \$ _____	

APPENDIX B

**FEDERAL SUPPLY GROUP FACTORS FOR EVALUATING QUALITY DEFICIENCY
REPORT COSTS**

(BY CENTER AND FSG WITHIN CENTER)

DEFENSE CONSTRUCTION SUPPLY CENTER

FEDERAL SUPPLY GROUP	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x PROPOSED CONTRACT) VALUE
10	E.F.	= \$449.10	+ (2.827434	x \$ _____)
14	E.F.	= \$449.10	+ (9.789250	x \$ _____)
15	E.F.	= \$449.10	+ (0.015958	x \$ _____)
16	E.F.	= \$458.88	+ (7.611812	x \$ _____)
17	E.F.	= \$458.88	+ (1.303232	x \$ _____)
20	E.F.	= \$449.10	+ (3.482278	x \$ _____)
22	E.F.	= \$449.10	+ (1.049471	x \$ _____)
24	E.F.	= \$449.10	+ (5.638737	x \$ _____)
25	E.F.	= \$445.66	+ (3.879084	x \$ _____)
26	E.F.	= \$449.10	+ (0.056050	x \$ _____)
28	E.F.	= \$452.88	+ (16.851526	x \$ _____)
29	E.F.	= \$452.88	+ (5.525539	x \$ _____)
30	E.F.	= \$451.74	+ (5.453064	x \$ _____)
37	E.F.	= \$449.10	+ (1.689977	x \$ _____)
38	E.F.	= \$449.10	+ (1.500724	x \$ _____)
39	E.F.	= \$449.10	+ (4.196156	x \$ _____)
41	E.F.	= \$449.10	+ (0.300333	x \$ _____)
42	E.F.	= \$452.88	+ (2.423302	x \$ _____)
43	E.F.	= \$452.88	+ (8.505476	x \$ _____)
44	E.F.	= \$449.10	+ (11.317405	x \$ _____)
45	E.F.	= \$446.13	+ (6.776477	x \$ _____)
46	E.F.	= \$449.10	+ (1.817900	x \$ _____)
47	E.F.	= \$446.13	+ (4.431870	x \$ _____)
48	E.F.	= \$447.77	+ (6.043302	x \$ _____)
49	E.F.	= \$447.77	+ (2.613946	x \$ _____)
53	E.F.	= \$449.10	+ (0.431662	x \$ _____)
54	E.F.	= \$449.10	+ (25.000000	x \$ _____)
55	E.F.	= \$448.30	+ (3.000955	x \$ _____)
56	E.F.	= \$449.10	+ (1.444877	x \$ _____)
59	E.F.	= \$449.10	+ (6.313115	x \$ _____)
66	E.F.	= \$449.10	+ (0.052991	x \$ _____)

DEFENSE ELECTRONICS SUPPLY CENTER

FEDERAL SUPPLY GROUP	EVALUATION FACTOR PER COMPLAINT	=	ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
12	E.F.	=	\$660.79	+ (3.445590	x \$_____	
14	E.F.	=	\$660.79	+ (7.604946	x \$_____	
16	E.F.	=	\$660.79	+ (3.370765	x \$_____	
20	E.F.	=	\$660.79	+ (2.544912	x \$_____	
29	E.F.	=	\$660.79	+ (0.001472	x \$_____	
30	E.F.	=	\$660.79	+ (0.123630	x \$_____	
43	E.F.	=	\$660.79	+ (0.756817	x \$_____	
49	E.F.	=	\$660.79	+ (1.749907	x \$_____	
53	E.F.	=	\$660.79	+ (0.447027	x \$_____	
58	E.F.	=	\$733.54	+ (3.742086	x \$_____	
59	E.F.	=	\$668.92	+ (8.602770	x \$_____	
60	E.F.	=	\$660.79	+ (1.681899	x \$_____	
61	E.F.	=	\$660.79	+ (1.769173	x \$_____	
66	E.F.	=	\$690.77	+ (11.991954	x \$_____	
70	E.F.	=	\$660.79	+ (4.627101	x \$_____	
75	E.F.	=	\$660.79	+ (1.182031	x \$_____	
81	E.F.	=	\$660.79	+ (7.746479	x \$_____	

DEFENSE GENERAL SUPPLY CENTER

FEDERAL SUPPLY GROUP	EVALUATION FACTOR PER COMPLAINT	= ADMINISTRATIVE + COST	(PERCENT	x PROPOSED CONTRACT) VALUE
10	E.F.	\$527.23	+ (10.629224	x \$_____)
15	E.F.	\$527.23	+ (7.821068	x \$_____)
16	E.F.	\$527.23	+ (1.465119	x \$_____)
18	E.F.	\$527.23	+ (5.141860	x \$_____)
20	E.F.	\$527.23	+ (0.621830	x \$_____)
31	E.F.	\$527.23	+ (0.140231	x \$_____)
32	E.F.	\$527.23	+ (8.855718	x \$_____)
34	E.F.	\$549.60	+ (5.127480	x \$_____)
35	E.F.	\$527.23	+ (18.004856	x \$_____)
36	E.F.	\$527.23	+ (0.534539	x \$_____)
39	E.F.	\$527.23	+ (2.812801	x \$_____)
41	E.F.	\$521.02	+ (1.946024	x \$_____)
42	E.F.	\$506.70	+ (2.648505	x \$_____)
49	E.F.	\$555.40	+ (2.442944	x \$_____)
52	E.F.	\$527.23	+ (0.625543	x \$_____)
53	E.F.	\$527.23	+ (3.838959	x \$_____)
59	E.F.	\$513.41	+ (3.913422	x \$_____)
61	E.F.	\$536.16	+ (1.222819	x \$_____)
62	E.F.	\$511.98	+ (4.486735	x \$_____)
63	E.F.	\$527.23	+ (0.867444	x \$_____)
66	E.F.	\$523.57	+ (2.655581	x \$_____)
67	E.F.	\$523.57	+ (5.451565	x \$_____)
68	E.F.	\$555.40	+ (2.084567	x \$_____)
69	E.F.	\$527.23	+ (7.041656	x \$_____)
71	E.F.	\$527.23	+ (0.056852	x \$_____)
72	E.F.	\$527.23	+ (0.525606	x \$_____)
73	E.F.	\$555.40	+ (0.902049	x \$_____)
74	E.F.	\$527.23	+ (5.141860	x \$_____)
75	E.F.	\$527.23	+ (0.025695	x \$_____)
76	E.F.	\$532.06	+ (0.708952	x \$_____)
81	E.F.	\$527.23	+ (0.438320	x \$_____)
91	E.F.	\$527.23	+ (1.098242	x \$_____)
93	E.F.	\$555.40	+ (1.164626	x \$_____)
94	E.F.	\$527.23	+ (5.141860	x \$_____)
96	E.F.	\$527.23	+ (5.141860	x \$_____)
99	E.F.	\$527.23	+ (0.134678	x \$_____)

DEFENSE INDUSTRIAL SUPPLY CENTER

FEDERAL SUPPLY GROUP	EVALUATION FACTOR PER COMPLAINT	=	ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
15	E.F.	=	\$570.11	+ (0.874239	x \$ _____)	
16	E.F.	=	\$570.11	+ (0.775657	x \$ _____)	
20	E.F.	=	\$538.42	+ (0.084023	x \$ _____)	
28	E.F.	=	\$570.11	+ (1.208470	x \$ _____)	
29	E.F.	=	\$538.42	+ (2.201370	x \$ _____)	
30	E.F.	=	\$538.42	+ (0.099780	x \$ _____)	
31	E.F.	=	\$541.08	+ (5.413520	x \$ _____)	
39	E.F.	=	\$538.42	+ (0.009204	x \$ _____)	
40	E.F.	=	\$532.77	+ (7.608685	x \$ _____)	
47	E.F.	=	\$538.42	+ (0.001836	x \$ _____)	
53	E.F.	=	\$532.77	+ (6.824372	x \$ _____)	
59	E.F.	=	\$538.42	+ (0.296411	x \$ _____)	
61	E.F.	=	\$521.71	+ (25.000000	x \$ _____)	
95	E.F.	=	\$570.11	+ (3.582646	x \$ _____)	
96	E.F.	=	\$538.42	+ (4.573565	x \$ _____)	

DEFENSE PERSONNEL SUPPORT CENTER
CLOTHING & TEXTILES

FEDERAL SUPPLY GROUP	EVALUATION FACTOR PER COMPLAINT	=	ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
72	E.F.	=	\$1,938.06	+ (0.301829	x \$ _____)	
83	E.F.	=	\$1,938.06	+ (0.734355	x \$ _____)	
84	E.F.	=	\$1,920.07	+ (0.057509	x \$ _____)	
94	E.F.	=	\$1,938.06	+ (0.065926	x \$ _____)	

**DEFENSE PERSONNEL SUPPORT CENTER
MEDICAL**

FEDERAL SUPPLY GROUP	EVALUATION FACTOR PER COMPLAINT	=	ADMINISTRATIVE + COST	(PERCENT	x	PROPOSED CONTRACT) VALUE
41	E.F.	=	\$694.22	+ (0.037206	x \$ _____)	
42	E.F.	=	\$694.22	+ (0.000000	x \$ _____)	
46	E.F.	=	\$694.22	+ (0.038613	x \$ _____)	
53	E.F.	=	\$694.22	+ (1.677192	x \$ _____)	
61	E.F.	=	\$694.22	+ (0.639812	x \$ _____)	
62	E.F.	=	\$694.22	+ (0.756561	x \$ _____)	
65	E.F.	=	\$689.55	+ (1.465693	x \$ _____)	
66	E.F.	=	\$693.05	+ (1.240945	x \$ _____)	
68	E.F.	=	\$694.22	+ (1.191689	x \$ _____)	
69	E.F.	=	\$694.22	+ (0.461148	x \$ _____)	
71	E.F.	=	\$694.22	+ (0.454481	x \$ _____)	
72	E.F.	=	\$694.22	+ (1.148023	x \$ _____)	
75	E.F.	=	\$694.22	+ (0.039969	x \$ _____)	
76	E.F.	=	\$694.22	+ (2.131127	x \$ _____)	
81	E.F.	=	\$694.22	+ (1.495484	x \$ _____)	
84	E.F.	=	\$694.22	+ (0.116311	x \$ _____)	
85	E.F.	=	\$694.22	+ (0.254761	x \$ _____)	
88	E.F.	=	\$694.22	+ (1.471786	x \$ _____)	
89	E.F.	=	\$694.22	+ (0.075630	x \$ _____)	
94	E.F.	=	\$694.22	+ (1.471786	x \$ _____)	